THE ANATOMY OF INDIAN FISCAL FEDERALISM

SYNOPSIS

1. Introduction

Governments across the world are entrusted with the responsibility of promoting the welfare of their subjects. A responsibility of this nature necessitates financial and legislative enterprise. Broadly, a nation could either be Federal, Unitary or a Confederation. It is the territorial allocation of powers and autonomy between the Union government and its sub-national constituents that determines its nature.

A federation exists when there are more than two tiers of government in the nation. The powers are *decentralized*, meaning dispersed from an all-powerful centre to lower levels. Federalism seeks to accomplish empowerment of sub-national (state) governments.

At the core of decentralization lies financial responsibility. Fiscal federalism concerns financial management of federations. Simply stated, it determines how functions are assigned and financial sources are allocated between various levels of the government. Additionally, it also charts a resolving mechanism to address fiscal imbalances that arise out of such arrangements.

The principles and policies are expected to be designed in a manner that ensure harmonious interdependencies between the multiple levels of government while also encouraging competition in some form. Cooperation and competition together establish cost efficiencies in public service provisioning.

2. Literature Review

The rationale behind fiscal federalism stems from the notion that decentralized governance engenders welfare gains (Oates, 1999). What easily follows from this narrative is that lower tier governments must be enabled to design public services as per the unique needs of their people. What is challenging, however, is to ensure adequate resources for the subnational governments to carry out their expenditures. It is often noticed that taxation powers seem to be

concentrated in the hands of the centre whereas expenditure functions have devolved significantly. This asymmetry leaves the centre with resources greater than that required for its expenditures, and the subnational governments with expenditures greater than that made feasible by its revenues.

These imbalance demand that resources be transferred from the centre to the states/ sub-national governments (Rao, 2007). Thus, fiscal transfers from centre to the sub-national governments are designed to bridge the gap between the latter's needs and its revenue raising capabilities. Intergovernmental transfers are an integral part of federal fiscal architecture. However, the impact of central transfers could tilt either way, encouraging sub-nationals to augment their own resources or causing fiscal indiscipline therein.

Issues of fiscal federalism are multi-faceted, each aspect warranting a thorough analysis. Some of which we study in this thesis.

i. **The impact of central transfers on revenue effort**

Revenue effort speaks of the revenue raising ability of governments. Several empirical studies have estimated tax effort for both developed and developing countries using cross section and panel data analyses (Bahl 1971; Chelliah et al. 1975; Tait et al. 1979; ACIR 1993; Stotsky and WoldeMariam 1997; Fenochietto and Pessino 2013). Several studies have calculated relative tax effort in Indian States (Nambiar and Rao 1972; Reddy 1975; Thimmaiah 1979; Sen and Tulasidhar 1988; Jha et al. 2000; Coondoo et al. 2001; Purohit 2006; Agarwal 2012; Karnik and Raju 2015; Maurya et al. 2016; Garg et al. 2017). The two methods most frequently used in these studies are regression and the representative tax system (RTS) approaches.

Some studies have examined the impact of central transfers on tax effort. The evidence shows that, central transfers could create both negative incentive and positive incentives for tax effort. Canavire-Bacarreza and Zúñiga (2010) find a negative impact in Mexican municipalities. A similar exercise by Liu and Zhao (2011) and Baretti et al. (2002) show fiscal transfers and equalization transfers generate disincentives on provincial tax effort in Chinese and German sub-nationals respectively. However, Miyazaki (2016) examined the impact of central transfers on Japanese municipalities, evincing central transfers enhance tax effort of local governments in Japan.

In India, some studies find income of states to be directly proportional to their tax efforts (Namibiar and Rao, 1972; Purohit, 2006; Garg et al., 2017), while others differ (Reddy, 1975; Sen and Tulasidhar, 1988; Karnik and Raju, 2015). Further, in context of central transfers'

influence on tax efforts, Chelliah et al. (1982), Rajaraman and Vasishtha (2000), Naganathan and Sivagnanam (2000), and Panda (2009) establish a negative link, while Agrawal (2012) finds a positive link.

Overall, the authors find mixed results with regards to the influence that transfers from the Union might have on the sub-nationals. Moreover, a clear association between the income-level of states and their revenue effort is absent.

ii. Petroleum Revenues and Sales Tax Effort

Examining tax effort of governments is mostly carried out with objective of exploring the possibilities for augmenting tax capacities. Is there any scope of improving tax collections? Tax effort studies could therefore benefit from factoring out those revenues that require little or no effort in being garnered. To be able to comment on the nature of improvement that can be brought about in it, it is important to begin with reliable estimates of tax efforts.

Sales tax accounts for the most important source of revenue for Indian states, comprising 53 percent share in the state's own revenue and finances more than one quarter of total expenditure. Therefore, sales tax effort is of great consequence. However, only sparse literature exists with respect to a comprehensive analysis of Sales tax effort (Purohit, 2006; Karnik and Raju, 2015; and Mukherjee, 2017).

Besides, within States' Own Tax Revenues, the quantum of sales tax on petroleum products is sizable, amounting to approximately 30 per cent. The Indian petroleum sector is dominated by Central Public Sector Undertakings (CPSUs) with limited number of market participants in refining of crude oil as well as distribution of refinery products. Being under CPSUs with limited number of market operators, the petroleum sector is always an 'easy- to-tax' sector for both the union and state tax administrators. Therefore, leakages are minimal. On that basis, including petroleum revenues in calculation of sales tax effort may yield unreliable estimates. This intuition needs to be examined further.

iii. On Fiscal Autonomy and Public Expenditure Performance

Decentralization champions for greater autonomy to sub-nationals in their fiscal matters, envisioning better financial planning and financial accountability (Tatsos, 1999). Greater decentralization measured stimulates deeper and more meaningful engagement of sub-central governments in public expenditures. States' revenues are the means that enable it to pursue its developmental vision and priorities.

Several studies have assessed impact of decentralization and autonomy on economic growth. Martinez-Vasquez and McNab (2003) find a positive link between the two, which is agreed upon by several others (Yilmaz, 1999; Zhang and Zou, 2001; Jin and Zou, 2005; etc.). In contrast, others have established a negative relationship (Davoodi et. al, 1995; Zhang and Zou, 1998; Davoodi and Zou, 1998). Still others like Woller and Phillips (1998) and Martinez-Vasquez & McNab (2002) fail to find a significant association between the two variables, implying at inconclusiveness of all the stated results.

Several other aspects of decentralization have been evaluated. With respect to principle-agency problems by Inman and Rubinfield (1997); political transparency by Arzaghi and Henderson, 2005; and Rodden, 2003; income inequalities (Sepulveda and Martinez-Vasquez, 2011), inflation (King and Ma, 2011; Baskaran, 2012; Thornton, 2007b); and fiscal stability (Baskaran, 2012; Schaltegger & Feld, 2009).

However, the link between fiscal autonomy and public expenditures has been scarcely explored. Yet, it undoubtedly is of great consequence. In federal systems, sub-nationals perform a majority of capacity-building expenditures. Therefore, exploring the link between autonomy and public spending has important bearing on academia and policy making domain.

Literature on public expenditure efficiency and performance is scarce; a seminal contribution of recent times is that of Afonso et al. (2005). Using socio-economic indicators, Afonso et. al. (2005, 2010, 2013) developed performance and efficiency indicators[1] across twenty-three industrialized countries, evidencing better performance by smaller countries.

Rodden's analyses (Rodden, 2002; Rodden et al., 2003; Rodden, 2004) of the impact of fiscal decentralization and autonomy on fiscal performance of governments, can serve a starting point to understand its bearing on performance of the public expenditures.

3. Statement of the problem and Significance of the study

The present study covers three particular issues based on the assessed literature gap. These are (a) *the impact of central transfers on revenue effort*, (b) *the influence that petroleum revenues might have on sales tax effort in Indian states and* (c) *the probable nexus between fiscal*

[1] Public performance is gauged using seven sub-indicators – administrative, education, health, public infrastructure, distribution, stability and economic performance. Underlying these variables are several socio-economic indicators – school enrolment ration, unemployment ratio, infant mortality, life expectancy, inflation, GDP growth, corruption, etc.

autonomy and public expenditure performance index. In order to gauge any of these issues, an analysis of fiscal federal architecture generally, and its workings in the Indian domain, specifically, is also critical. The themes are detailed below.

3.1 Understanding the Impact of Central Transfers on Revenue effort

Dependence of sub-nationals on inter-governmental transfers is inevitable, but literature warns of the deleterious impact an overdependence on transfers from centre may occasion (Rodden et al., 2003). We examine the impact of central transfers on revenue effort of Indian States.

3.2 Examining the Role of Petroleum Revenues in Sales Tax Effort

We calculate Sales tax effort inclusive and exclusive of tax revenues from petroleum and its products, examining if inclusion overstates sales tax effort estimates.

3.3 Exploring the Influence of Fiscal Autonomy on Public Expenditure Performance

The impact of fiscal autonomy on public expenditure performance has not been studied in the Indian subnational context. The present study pursues an enquiry into the workings of fiscal autonomy and its influence on public expenditure performance.

4. Research Objectives

The overarching objective of this study is to ascertain the changing contours of Indian fiscal federalism and to develop an understanding of how centre-state relations operate in the subcontinent. Bearing that in mind, the following objectives are formulated.

1. To study the trends in sub-national government revenues in India.
2. To examine the relationship between central transfers and tax effort of the Indian States.
3. To assess the influence of petroleum revenues on sales tax effort of Indian States.
4. To investigate the impact of fiscal autonomy on public expenditure performance of Indian States.

5. Data and Methodology

5.1 Data

The study employs an annual data set for the period 2000 to 2017, extracted from various sources. Time series data on variables like the per capital income, agricultural gross state domestic product, development expenditure and electricity consumption are sources from *Finance Accounts (Comptroller and Auditor General of India)*, *Handbook of Statistics on*

Indian States (Reserve Bank of India) and *Ministry of Statistics and Programme Implementation (MOSPI)*.

5.2 Methodology

Different methods are used for different objectives. These are discussed in brief here. The detailed account is provided in the respective chapters.

Chapter 3 reviews the relationship between central transfers and tax effort. Dynamic Panel Models are employed to examine the relationship between central transfer and revenue effort.

Chapter 4 assesses if inclusion of petroleum revenues overstates sales tax effort. The study uses a Stochastic Frontier Analysis identify potential determinants of Sales tax and find inefficiency when petroleum tax revenue is not contained in sales tax. Finally, tax effort is calculated by predicting the efficiency from the model.

Chapter 5 examines the impact of fiscal autonomy on public expenditure performance across eighteen Indian states. The empirical analysis in this study involves a two-fold approach. First, fiscal autonomy and public expenditure performance are quantified. Expenditure performance is quantified using composite indicators (CIs). Composite indicators are useful in providing comparisons of countries or sub-national governments. Composite indicators are also useful for benchmarking performances (Saltelli, 2007). Finally, we use panel data estimation, employing the Bundell-Bond GMM model to examine the impact of fiscal autonomy on public expenditure performance index of Indian states over FY 2010-17. Further, a Fully Modified Ordinary Least Squares (FMOLS) approach and other cointegration tests reveal that there is a long run benefit of greater autonomy on expenditure performance of Indian states.

6. Key Findings

The major findings from the chapters are outlined below:

6.1 The assessment of sub-national government revenues in Indian States

On assessment of revenues and expenditures of eighteen Indian States shows that the revenue gap has widened over the years (between FY 2000-2017). It is evident that neither tax nor non-tax revenues have substantially added to the revenue resources of these states.

Own Non-Tax Revenues (as percentage of GSDP) have fallen from 2.10 per cent in FY: 2000-05 to 1.39 per cent FY: 2015-17. Seven out of the eighteen states covered in this study have a non-tax revenue to revenue receipts ratio below 10. Baring the states of Kerala and West Bengal, the share of non-tax revenues in all other States has declined between FY:2001-05 and FY:2013-17. The reason for this can be traced to low user charges for public services, non-revision of user charges for prolonged time periods vis-à-vis the cost increases, and late revisions in mining royalty and premiums.

6.2 The impact of central transfers on relative revenue effort of Indian States

It is observed that transfers do in fact, lessen the differences in fiscal capacities of Indian states. Over the years, the dependence on central transfers has increased. We also find that greater dependence on central transfers has a negative influence on revenue efforts of Indian States.

6.3 A more robust measure of Sales Tax Effort: with or without Petroleum Revenues?

Sales Tax is the cardinal component of States' Own Tax Revenues and petroleum revenues account for a significant share of sales tax revenues. We find that inclusion of these revenues overstates the sales tax effort of almost all subnational governments.

6.4 The Role of Fiscal Autonomy in Public Expenditure Performance?

Results indicate that over time fiscal autonomy has declined in Indian States. Further, it observed that fiscal autonomy has a positive impact of the public expenditure performance of Indian sub-nationals. Based on this finding, we submit that expenditure performance of sub-national governments can be improved by ensuring greater financial autonomy for states.

7. Policy Recommendations

Based on the studies, the following policy implications emphasized:

1. In the spirit of true federal practices, frequent dependence on cesses & surcharges should be resisted.
2. It should be emphasised that any design of transfers in the context of in Indian federation would remain cosmetic, unless drastic redistribution takes place in the horizontal allocation of resources.

3. With the implementation of the Goods and Services Taxation Act, most of the states saw revenue shortfalls. It would benefit the states to strengthen tax administration and explore alternative tax sources towards consolidating their resource envelopes.
4. Non-taxes must be prioritized. It is essential to understand and appraise the performance of some of the non-tax sources of States with a view to examining their trends, identifying the factors responsible for their growth or lack of growth, exploring the scope for rationalising their price structures and, thereby, improving the overall budgetary position of the States as well as efficiency in resource use.
5. Wide ranging revenue gaps emerge from differences in the resource bases of states, as also differing development status. Therefore, fiscal equalisation should continue to remain in focus.
6. Transfers from the Centre are critical for the states. However, these transfers need to be designed with utmost caution. Transfers encourage fiscal indiscipline in sub-national governments, most reflective in the form of poor tax effort. The Fifteenth Finance Commission has re-incorporated tax effort in the devolution formula. It is recommended that successive Finance Commissions must continue with this practice to prevent central transfers from building any fiscal disincentives for the states with respect to their revenue raising functions.
7. Petroleum revenues flow directly as the states collect tax revenues from petroleum products at the first point of sale by oil marketing companies. Hence, the collection efficiency is very high with relatively less effort. Including these revenues would, therefore, overstate the revenue collection performance of the concerned state. Therefore, it is suggested that assessment of the sales tax effort of Indian states should exclude petroleum tax revenues.
8. It is suggested that sub-national governments be empowered with greater autonomy in fiscal matters. With greater freedom in their fiscal matters, states can design customized policies for targeted populations. In the long run, this is expected to improve expenditure outcomes in key sectors such as school education and health.
9. With GST having reformed the most of the indirect taxes, measures may be taken to explore underexploited taxes like the Agricultural Income Tax, Profession tax and land revenues.

8. Structure of the Thesis

The thesis comprises six broad chapters, organized in the following manner:

I. Chapter One narrates the evolution of Indian fiscal federalism spanning across pre-independence era to the present. It narrates the premises of federalism, before providing an extensive account of Indian fiscal federalism in its past and present forms. The chapter sets the overarching context of the thesis by the way of illuminating peculiarities of the system.
II. Chapter Two documents Indian subnational governments resources. This chapter is a tax-by-tax account of the various revenue sources – taxes and non-taxes. The study covers 17 major Indian States and Assam for the period 2001-2017. The resource envelope of Indian States is appraised and the imbalances in them are evidenced. The issues of vertical and horizontal fiscal imbalances are highlighted.
III. Chapter Three evaluates the revenue effort of Indian States and estimates the impact of central transfers recommended by the Finance Commission on the relative revenue effort of states.
IV. Chapter Four assesses sales tax effort of Indian States, inclusive and exclusive of petroleum revenues.
V. Chapter Five examines the impact of fiscal autonomy on public expenditure performance across Indian states. We develop a metric of public expenditure performance using social indicators. We also measure fiscal autonomy using revenue-expenditure ratio. Using the system GMM based approach, the impact of fiscal autonomy on public expenditure performance is estimated.
VI. The final section a synthesis of the observations, key findings, limitations of the study, and policy implications. The section ends with a few probable research suggestions pertinent to the domain.